

Notice of Allowability

Application No.

10/521,301

Examiner

Jasmine J. Clark

Applicant(s)

ISOKAWA, SHINJI

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to preliminary amendment filed 11/18/2004.
2. ☒ The allowed claim(s) is/are 1-15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/18/2004
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
- ☐ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other _____

**JASMINE CLARK
PRIMARY EXAMINER**

Jasmine Clark

Information Disclosure Statement

1. The IDS and the preliminary amendment filed 11/18/2004 have been fully considered.

References Cited

2. Isokawa et al. (US 6,121,637) disclose a semiconductor light emitting device, comprising a semiconductor chip 3 (see Figs. 1 and 2) provided with a first electrode 39 formed in a small region at a first corner on one surface of a crystal substrate 31 (see column 5, line 43) formed as a quadrangular; a second electrode 38 formed in a large region and facing the first electrode, the second electrode 38 being arranged to cover a second corner located diagonally away from the first corner and extend along two sides of the crystal substrate 31 that include the second corner, and a circuit substrate 10 including an upper surface provided with a pair of external connection electrodes 4 connected to the first electrode 39 and the second electrode 38; the external connection electrodes 4 comprising a first external connection electrode including a first lead 11 (see Fig. 3(b)). However, Isokawa fails to teach and/or suggest that the pair of external connection electrodes connected to the first electrodes and the second electrodes via a thermally meltable die-bonding agent such as solder paste; a second external connection electrode including a second lead connected to the second electrode, the first lead of the first external connection electrode being narrow and extending transversely to one side of the crystal substrate, the second lead of the second external connection electrode including at least one narrow strip and extending in a direction

opposite to the extending direction of the first lead, the second lead being transverse to another side of the crystal substrate that is parallel to the one side to which the first lead is transverse,
and the first lead and the second lead being offset from each other by a prescribed distance.

The references of interest are cited: Uemura (US 6,835,958 B2), Lin (US 6,465,808 B2), Tsutsui (US 6,414,339 B1) teach having first and second electrode and crystal substrate which is similar structure as the above discussion. Okazaki (US 5,670,797) teaches bonding an LED chip 54 to electrodes 52 by conductive bonding agent 55.

Field of Search

3. This application was searched in class 257, subclasses 678, 81, 82, 84, 91, 99, 100, 177, 179, 182, 689, 690, 693, 698, 699, E33.001, E33.002, E33.003, in view of the limitations of the claimed invention. This search was ineffective.

Allowable Subject Matter

4. Claims 1-15 are allowed.

The following is an examiner's statement of reasons for allowance: please see the above discussion in paragraph 2.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2815

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Telephone Inquiry Contacts

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasmine J. Clark whose telephone number is (571) 272-1726. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jjbc/10/30/05

**JASMINE CLARK
PRIMARY EXAMINER**

